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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	:	Jeffrey Dunmire	Group Art Unit: 3677
Appl. No.	:	10/829,135	
Filed	:	April 21, 2004	
For	:	MAGNETIC JEWELRY	
Examiner	:	Jack W. Lavinder	

I hereby certify that this correspondence and all marked attachments are being deposited with the United States Postal Service as first-class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Arlington, VA 22313-1450, on

February 3, 2006
(Date)

R. Scott Weide, Reg. No. 37,755

DECLARATION OF JEFFREY DUNMIRE PROVIDED UNDER 37 C.F.R. § 1.132

I , Jeffrey Dunmire, declare as follows:

1. I am a resident of the State of Nevada, U.S.A. I make this Declaration on personal knowledge, and if called and sworn as a witness, I could and would competently testify as set forth below. and the sole inventor of the subject-matter claimed in the above-referenced application.

2. I have been in the business of developing and marketing magnetic jewelry products since August 1998. There is substantial science behind magnetic therapy. However, little effort has been made to apply this science specifically to the design of magnetic jewelry products. Instead, prior art magnetic jewelry products have generally been common-place jewelry designs which rather blindly incorporate one or more magnets. As a result, the existing magnetic jewelry products suffer from a number of problems or disadvantages, and/or are not configured to fully exploit the potential benefits of magnetic therapy.

3. One problem is that existing jewelry often discolors the skin of the wearer and deteriorates to a condition of poor appearance.

4. Yet another problem is that some wearers find such jewelry heavy and cumbersome. In general, magnetic materials used in such jewelry products have a relatively high density (i.e. mass per volume) so that when magnets are simply added to common metal jewelry products, the mass of those jewelry products increases dramatically.

5. Generally, magnets which are associated with existing jewelry are selected solely with regard to convenient manufacture of the jewelry. In accordance with existing and accepted magnetic jewelry manufacturing techniques, a cylindrical magnet is placed in a mating cylindrical hole punched in a rear portion of the jewelry. If a manufacturer wishes to utilize a larger magnet, the manufacturer obtains magnets which are of the same cylindrical shape but which are correspondingly larger in every dimension. However, to support these larger magnets, the individual elements (such as links) must be correspondingly increased to hold those magnets, contributing to a further undesirable increase in size and weight of the total jewelry product.

6. Despite these problems, magnetic jewelry designs changed little over many, many years.

7. Recognizing the long-felt need for a solution to these and other problems, in 2002 and early 2003 I devoted significant effort to developing some new magnetic jewelry configurations. The results of these efforts is the present invention.

8. Various aspects of my magnetic jewelry configuration are new and have unexpected results and benefits.

9. First, I found that constructing the links of the magnetic jewelry entirely from a precious metal solved several problems. This construction eliminates the skin discoloration issue.

Some existing jewelry was plated with silver or gold for aesthetic purposes, such as the FDP-Magnetics' designs cited by the Examiner. However, in some cases, the back-side of the jewelry is not plated, allowing the base material to contact the skin and discolor and irritate the skin. In addition, even when plated, the plating tends to wear quickly, ultimate exposing the undesirable base metal of the jewelry. However, by using solid precious metal, I found that any and all issues associated with skin discoloration, irritation and undesirable wear (plating wearing or scaling from the base material) were completely eliminated, even over long periods of time.

10. While such solid precious metal designs are advantageous for the above-described reasons, I still found that they are often still relatively heavy. Despite the fact titanium is difficult to work with, I considered that titanium might still be usable if the jewelry could still be manufactured using a punch process (as detailed below relative to forming the hole in the link for the mating magnetic). I found that magnetic jewelry with the jewelry elements (such as links) constructed of titanium was both lightweight had the above-described benefits.

11. I also elected to try and improve the magnetic therapy benefits of the jewelry, and my solution runs completely counter to the Examiner's suggested approach of simply increasing the total mass of the magnet. In the prior art, there is essentially a teaching away from changing an existing jewelry product to simply include a larger magnet. As indicated above, the common magnetic jewelry configuration is one where a cylindrical (round/circular cross-section) magnet is located in one or more of the links of the jewelry. When such a magnet is made larger, however, its mass increases substantially. Moreover, if the size of the magnet is increased without changing

the jewelry link size, the magnet will generally be located too close to the edges of the link, compromising the integrity of the link.

12. I determined that instead of increasing the total mass or size of each magnet, it would be beneficial to increase the contact surface area of the magnet(s) with the wearer. In particular, I determined that it would be beneficial to increase the outward surface area of the magnet(s) associated with the jewelry without substantially increasing the depth of the magnet(s), as was the case in the prior art.

13. The prior art teaches away from such a solution, however, primarily because existing designs did not facilitate such an approach. As indicated, prior designs use cylindrical magnets. When these magnets are associated with the common "elongate" jewelry link, an increase in the diameter of the magnet will ultimately result in there being insufficient supporting link at the top and bottom of the magnet, compromising the integrity of the link. The resultant solution would necessitate increasing the size of the link to support the larger magnet, which then decreases the relative surface area of the magnet to the link.

14. In addition, the prior art teaches away from using a magnet which is other than cylindrical in shape (and thus circular in cross-sectional shape). In particular, the circular design is known to reduce stress points, reducing the probability of cracking. More importantly, the mating cylindrical hole for a magnet of such a shape can feasiblely be formed in a relatively simple single punch, punching procedure

15. Unexpectedly, the claimed oval design overcomes these various problems and issues, especially when used with an elongate link. In particular, if an oval magnet is aligned lengthwise

with the link, a high magnet surface area to link surface area ratio can finally be achieved. This is true even though sufficient link material remains to assure the link does not crack or fail.

16. This oval magnet configuration is also non-obvious because it overcomes the complex manufacturing issue detailed above and when considering various other issues which make the oval configuration an unlikely candidate. At first blush, only expensive and time consuming manufacturing techniques such as molding, laser-etching, or the link appear suitable for forming holes in the links which are other than circular in shape. In addition, use of anything but a simple circular punch at the center of the link risks that the recess (and mating magnet) will not be centered and aligned with the link, causing the associated magnet to be visually askew when associated with the link. After considerable effort, I determined that an oval recess could be formed by carefully inter-relating multiple individual punches with each punch progressively deepening the recess to ultimately result in an acceptable receptacle to place the magnet. This multi-punch process utilizes a simple single circular punch, but permits the much more complex oval shaped recess to be created. Further, because of the multi-step process starting with a central punch, the location of the recess can be controlled very accurately to ensure that it (and the magnet placed in the recess) is aligned with the link. Additionally, this multiple punch procedure overcomes the inherent stress cracking problem of the link during the punching process and permits use of oval magnets which also have a minimal stress point configuration. In this manner, I solved both the problem of how to easily manufacture the jewelry, but also facilitated use of magnets with large surface areas relative to the links with which they were to be used.

17. Additional evidence that my invention is innovative is that despite many, many years of little change in magnetic jewelry configurations prior to my invention, since the introduction of my invention, numerous entities have introduced their own products with various of these new features. I am not aware of any offerings of magnetic therapy jewelry having these features of my invention until some twelve to fifteen month after my products were introduced to the public. In my opinion, it took this amount of time for other entities to reverse engineer the features of my invention and then produce and introduce those infringing products to the market.

18. I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed this 01 day of Feb, 2006. By: _____
Jeffrey Dunmire

SUBSCRIBED and SWORN to before me
this 01 day of Feb, 2006.

_____
Notary Public

CLARRISSE L. ERSKINE
Notary Public State of Nevada
No. 05-99546-1
My appt. exp. Aug. 2, 2009